1. A tensioner for a power transmission belt that operates on an endless path and that utilizes asymmetric motion control, the tensioner comprising:

an arm comprising a belt engaging section and a drum section;

a support member for securing the tensioner relative to the belt, the arm pivoting on the support member;

a spring that urges the arm to pivot about the support member in a first direction and urges the belt engaging section against the belt with a force to tension the belt;

a fluid containing chamber located inside a portion of the drum section of the arm; and

a valve pivotally attached to the tensioner so that the valve extends across the fluid containing chamber.

2. The tensioner of claim 1, further comprising sealing devices.

3. The tensioner of claim 1, wherein the valve is biased by a weighted device.

4. The tensioner of claim 1, wherein the valve is biased by a spring device.

5. The tensioner of claim 1, wherein a fluid in the fluid filled chamber is a hydraulic fluid with a predetermined viscosity, such that the tensioner can be tuned and an desired viscous damping coefficient can be established.

6. The tensioner of claim 1, wherein the valve is coupled to the drum section and the chamber moves with respect to the valve, wherein when the chamber moves in a first direction the valve opens and when the chamber moves in a second direction the valve closes and locks against a portion of the tensioner such that a damping force is generated based on the fluid in the chamber pushing against the closed and locked valve.

7. The tensioner of claim 1, further comprising:

a stationary valve plate coupled to a first portion of the drum section, wherein the valve is coupled to the stationary valve plate;

wherein the chamber is coupled to a second portion of the drum section;

wherein the chamber moves with respect to the valve, wherein when the chamber moves in a first direction the valve opens and when the chamber moves in a second direction the valve closes and locks against a portion of the tensioner such that a damping force is generated based on the fluid in the chamber pushing against the closed and locked valve.

8. The tensioner of claim 1, wherein the valve and the chamber move relative to each other and wherein the valve remains open in a first direction of motion and closes and locks against a portion of the tensioner in a second direction of motion to lock, such that a damping force is generated through the locking.

9. The tensioner of claim 1, wherein the support member comprises a hub about which the arm pivots.

10. The tensioner of claim 1, wherein the belt engaging section includes a pulley.

11. The tensioner of claim 1, wherein the support member comprises a housing for the spring.

12. The tensioner of claim 11, wherein after the valve locks against the portion of the tensioner a predetermined amount of a fluid in the chamber leaks adjacent the valve.

13. The tensioner of claim 1, wherein the chamber is approximately a combination of a length of a stroke of the tensioner and a width of the valve.

14. A method of utilizing a tensioner for maintaining a predetermined tension on a power transmission belt to be operated on an endless path, the method comprising the steps of:

providing an arm comprising a belt engaging section and a drum section;

providing a support member configured to be secured relative to the belt, the support member comprising a hub having a longitudinal axis and being fixed from movement relative to the belt engaging section, the hub moveably holding the arm;

providing a spring operatively interconnected to the arm and the support member, the spring being configured to urge the belt engaging section relative to the support member and against the belt with a force to provide the predetermined tension on the belt;

providing a fluid containing chamber located inside a portion of the drum section of the arm; and

providing a valve pivotally attached to the tensioner so that the valve extends across the fluid containing chamber.

15. The method of claim 14, further comprising the step of providing sealing devices.

16. The method of claim 14, further comprising the step of moving the chamber relative to the valve wherein in a first direction the valve remains open and in a second direction the valve closes and locks against a portion of the tensioner, such that a damping force is generated.

17. The method of claim 14, wherein the valve is coupled to the drum section and the chamber moves with respect to the valve, wherein when the chamber moves in a first direction the valve opens and when the chamber moves in a second direction the valve closes and locks against a portion of the tensioner such that a damping force is generated based on the fluid in the chamber pushing against the closed and locked valve.

18. The method of claim 14, further comprising the step of:

providing a stationary valve plate coupled to a first portion of the drum section, wherein the valve is coupled to the stationary valve plate;

wherein the chamber is coupled to a second portion of the drum section;

wherein the chamber moves with respect to the valve, wherein when the chamber moves in a first direction the valve opens and when the chamber moves in a second direction the valve closes and locks against a portion of the tensioner such that a damping force is generated based on the fluid in the chamber pushing against the closed and locked valve.

19. The tensioner of claim 14, wherein the chamber is approximately a combination of a length of a stroke of the tensioner and a width of the valve.

20. An endless power transmission belt asymmetric, hydraulic, vicious damping tensioning system comprising:

an engine;

an endless power transmission belt coupled to the engine; and

the tensioner set forth in claim 1 coupled to the belt.